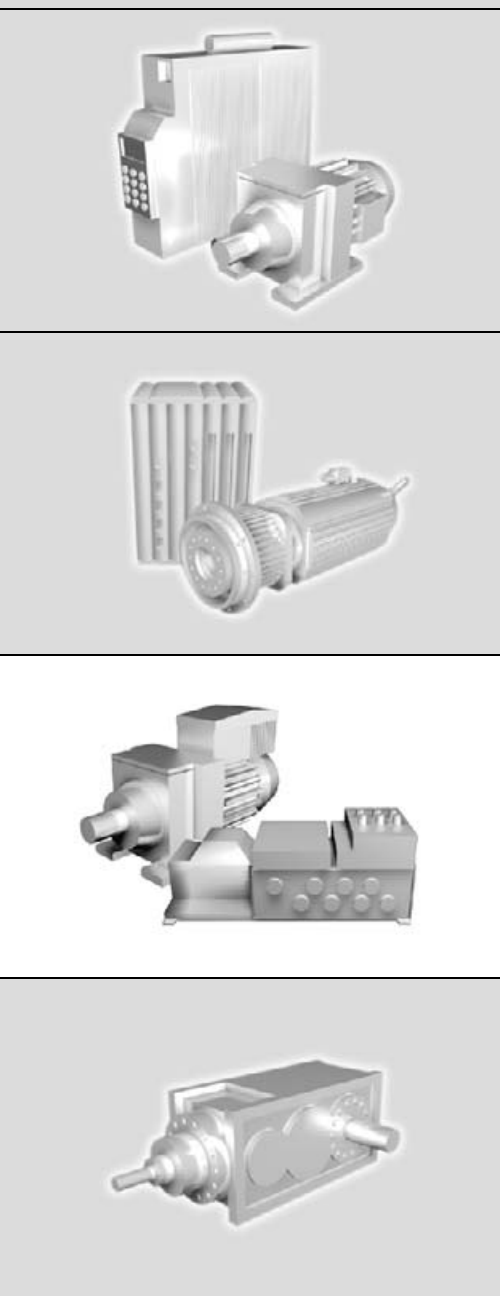




**SEW**  
**EURODRIVE**



# Stationary Energy Supply MOVITRANS® TAS10A Transformer Module

GC430000

Edition 09/2004

11306912 / EN

## Operating Instructions





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## 1 Important Notes

### Safety and warning notes

Always observe the safety and warning instructions in this publication!



#### Hazard

Possible consequences: Severe or fatal injuries.



#### Hazardous situation

Possible consequences: Slight or minor injuries.



#### Harmful situation

Possible consequences: Damage to the drive and the environment.



Tips and useful information.



A **requirement of fault-free operation** and fulfillment of any rights to claim under limited warranty is that you adhere to the information in the **operating instructions**. **Read the operating instructions** before you start operating the unit!

The **operating instructions** contain **important information about service** and should be kept **in the vicinity of the unit**.

### Designated use



The MOVITRANS® TAS10A transformer module is intended for use in industrial and commercial systems for the operation of contactless (proximity-type) power transmission systems. MOVITRANS® TAS10A may only be operated with the MOVITRANS® TPS10A stationary converter.

The MOVITRANS® TAS10A transformer module is a device for stationary installation in control cabinets. Observe all instructions on the technical data and the permitted conditions where the unit is operated.

Do not start up the unit (take it into operation in the designated fashion) until you have established that the machine complies with the EMC Directive 89/336/EEC and that the conformity of the end product has been determined in accordance with the Machinery Directive 89/392/EEC (with reference to EN 60204).

The rules and regulations of the Professional Association (Berufsgenossenschaft, BG), in particular BG rule B11 "Electromagnetic fields", must be observed during installation, startup and operation of systems with contactless energy transfer by induction **for use in industrial workplaces**.

**Operational environment**

**The following uses are forbidden, unless measures are expressly taken to make them possible:**

- In explosion-proof areas
- In areas exposed to harmful oils, acids, gases, vapors, dust, radiation, etc.
- In non-stationary applications with mechanical vibration and shock loads exceeding the values stipulated in EN 50178.

**Waste disposal**

Please follow the latest instructions: Dispose of the following materials in accordance with the regulations in force:

- Electronics scrap (circuit boards)
- Plastic (housing)
- Sheet metal
- Copper

etc.



## 2 Safety Notes

### Installation and startup



- **Never install damaged products or take them into operation.** Submit a complaint to the shipping company immediately in the event of damage.
- **Installation, startup and service work** to be executed by **trained personnel** only observing applicable accident prevention guidelines and the regulations in force (e.g. EN 60204, VBG 4, DIN-VDE 0100/0113/0160).
- Follow the **specific instructions** during **installation** and **startup** of the other components!
- Ensure that **preventive measures** and **protection devices** apply with the **applicable regulations** (e.g. EN 60204 or EN 50178).  
Required preventive measures: Grounding the unit
- **The unit meets all requirements for safe disconnection** of power and electronics connections in accordance with EN 50178. **All connected circuits** must also **satisfy the requirements for safe disconnection**.
- Take **appropriate measures** (for example, connect binary input DIØØ "/>

### Operation and service



- **Before removing the protective cover, disconnect the TPS10A and TAS10A units from the supply system.** **Dangerous voltages** may still be present for up to **10 minutes** after disconnection from the power supply source.
- The unit has **IP00** enclosure with **removed cover** and **dangerous voltages** are present at all subassemblies. The unit must be closed during operation.
- When the **unit is switched on**, **dangerous voltages** are present at the **output terminals** as well as any **connected cables and terminals**. This is also the case when the TPS10A stationary converter is inhibited.
- The fact that the **operation LED V1** and other display elements are no longer illuminated on the TPS10A stationary converter **does not indicate** that the TPS10A and TAS10A units have been disconnected from the power supply and **do not carry any voltage**.



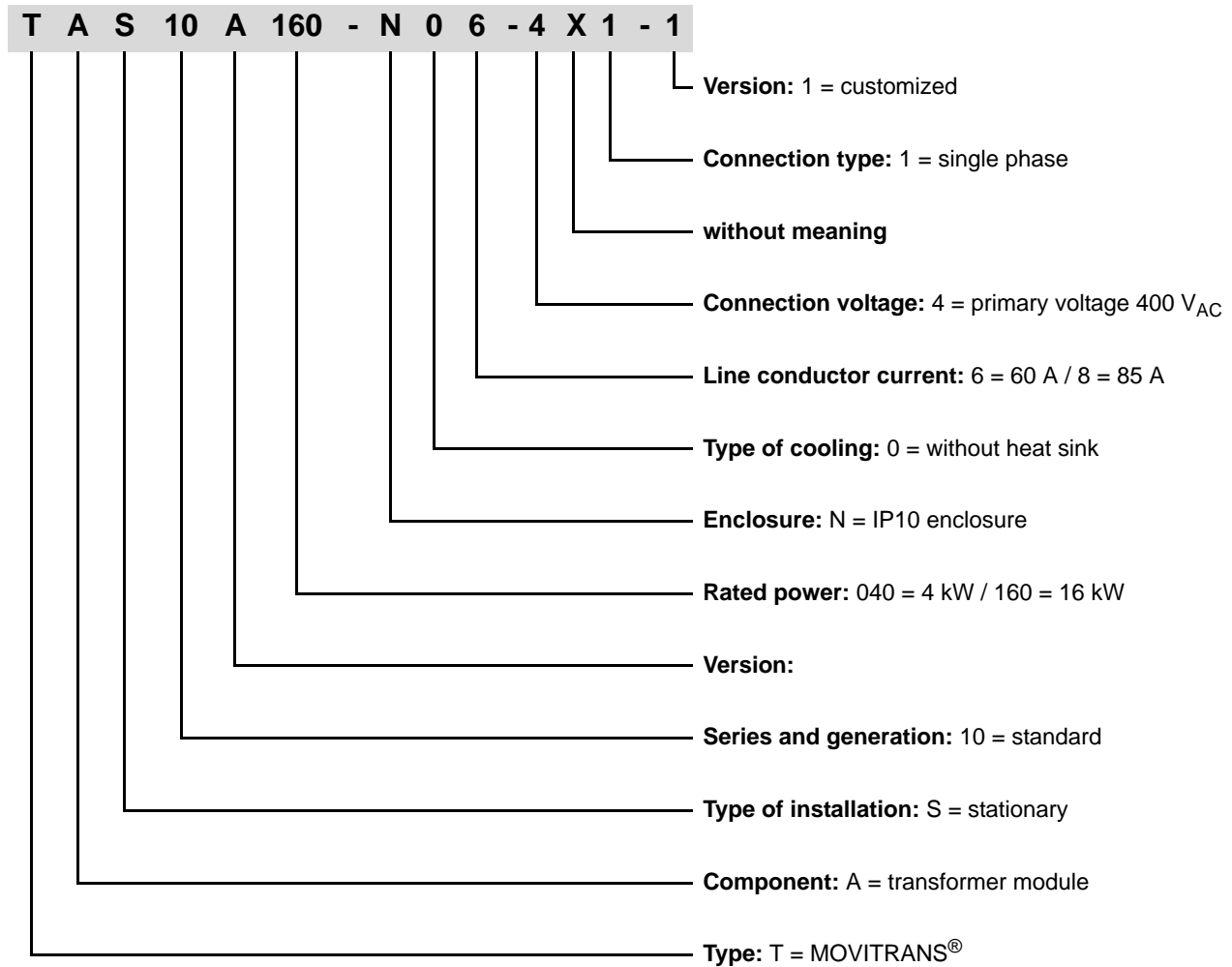
- **Safety functions within the unit** may cause **system standstill**. **Removing the source of the malfunction** or performing a **reset** can result in an **automatic restart of the system**. If safety reasons **prohibit** this action, **disconnect the TPS10A and TAS10A units from the power supply** before correcting the fault.



### 3 Installation

#### 3.1 Type designation, nameplates and scope of supply

##### Sample type designation





## Installation

### Type designation, nameplates and scope of supply

#### Sample nameplate

The nameplate is attached to the side of the unit.



Figure 1: MOVITRANS® TAS10A nameplate (example)

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#### Scope of delivery

The units are available in two sizes:

##### Size 2

TAS10A040 transformer module (4 kW)

##### Size 4

TAS10A160 transformer module (16 kW) with 5 connection conductor rails and 2 touch guards for the power terminals



- To perform compensation for a connected line conductor, compensation capacitors can be installed, if required (→ Section "Installation of compensation capacitors in TAS10A").
- The compensation capacitors must be ordered separately from SEW-EURODRIVE (→ Section "Technical Data").





### 3.2 Unit design size 2 (TAS10A040)



Figure 2: Unit design MOVITRANS® TAS10A040

53704AXX

- [1] X2: Gyrator connection G1 / G2  
(→ Primary voltage 400 V<sub>AC</sub> coming from TPS10A040 X2:G1/G2)
- [2] Terminal has no function
- [3] X3: Current feedback -I / +I  
(→ Coming from TPS10A040 X3:-I/+I)
- [4] X4: PE connection
- [5] LA (return conductor connection)
- [6] LI (supply conductor connection)



**Make sure to read the section "Wiring diagrams for line conductor on TAS10A040" when connecting the line conductors (LA/LI).**



## Installation

Unit design size 4 (TAS10A160)

### 3.3 Unit design size 4 (TAS10A160)



Figure 3: Unit design MOVITRANS® TAS10A160

55533AXX

- [1] Terminal has no function
- [2] X2: Gyrator connection G1 / G2  
(→ Primary voltage 400 V<sub>AC</sub> coming from TPS10A160 X2:G1/G2)
- [3] X3: Current feedback -I / +I  
(→ Coming from TPS10A160 X3:-I/+I)
- [4] Terminal has no function
- [5] X4: PE connection
- [6] Terminal has no function
- [7] LA1 (connection of first return conductor)
- [8] LI1 (connection of first supply conductor)
- [9] Terminal has no function
- [10] LI2 (connection of second supply conductor)
- [11] LA2 (connection of second return conductor)
- [12] PE connection



**Make sure to read the section "Wiring diagrams for line conductor on TAS10A160" when connecting the line conductors (LA1/LI1,LA2/LI2).**



### 3.4 Connection conductor rails size 4 (TAS10A160 and TPS10A160)



Figure 4: Connection conductor rails for MOVITRANS® TPS10A160 and TAS10A160

55304AXX

- [1] MOVITRANS® TPS10A160 stationary converter
- [2] Protective cover
- [3] Touch guard
- [4] Connection conductor rails
- [5] MOVITRANS® TAS10A160 transformer module
- [6] Connection conductor rails (detail view)



**Make sure to read the notes in the sections "Assembly and installation notes" and "Wiring diagram, size 4 (TAS10A160)" when installing the standardized connection conductor rails.**



### 3.5 Assembly and installation notes



It is essential to comply with the safety notes during installation!

#### Tightening torques

- Only use **genuine connection elements**.

**Note the following tightening torques:**

- Size 2 (TAS10A040)→Terminals X2, X3: 1.5 Nm (13.3 lb.in)
- Size 2 (TAS10A040)→Terminals LA / LI: 8 Nm (70.80 lb.in)
- Size 4 (TAS10A160)→ All connection terminals: 14 Nm (124 lb.in)
- Sizes 2 and 4 → All retaining screws for installation of the compensation capacitors: 8 Nm (70.80 lb.in)

#### Mounting position

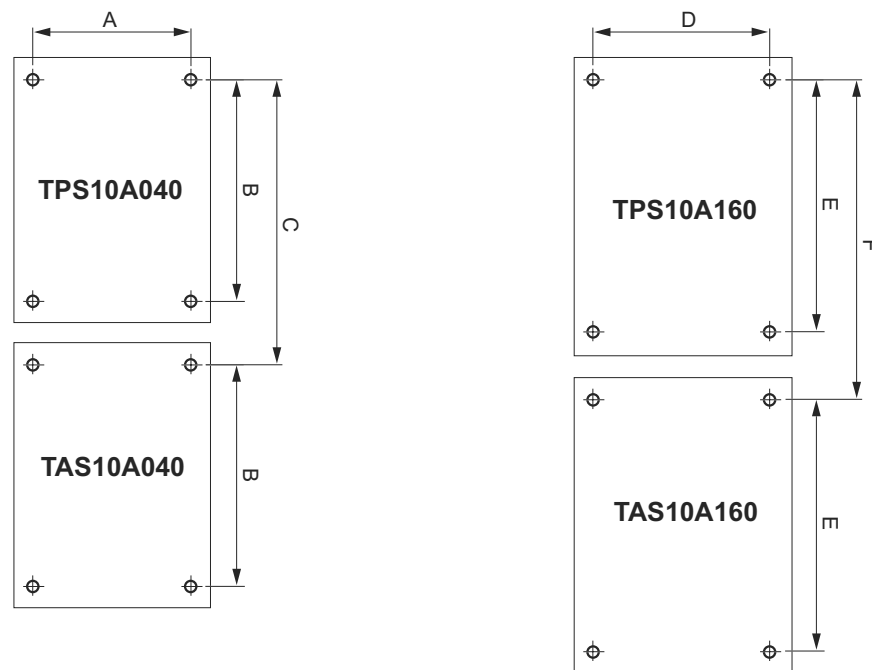
- You must **not** install them horizontally, tilted or upside down!

#### Vertical installation

- Install the units **TPS10A** and **TAS10A** vertically one above the other.
- Use **twisted cables for connecting TAS10A040 to TPS10A040**, as described in the section "Wiring diagram, size 2".

Use **standardized connection conductor rails for connecting TAS10A160 to TPS10A16**, as described in the sections "Connection conductor rails" and "Wiring diagram, size 4 (connection version A)."

- Note the distance between the units** for installation according to the following illustration:



53705AXX

Installation dimensions in mm:

TPS10A040			TAS10A040	TPS10A160			TAS10A160
A	B	C	B	D	E	F	E
105	300+1	348+2	300+1	140	500+1	548+2	500+1



#### Horizontal installation

The preferred installation option is to mount the units vertically one above the other. If you install the TPS10A and TAS10A units next to each other, note the following points:

- Leave **at least 100 mm (4 in) clearance at the top and bottom** for optimum heat dissipation. For project planning refer to the section "Technical Data." No clearance is required at the sides; the units can be lined up in rows.
- Use **twisted cables for connecting TAS10A040 to TPS10A040**, as described in the section "Wiring diagram, size 2".
- Use **twisted cables and a choke for connecting TAS10A160 to TPS10A16**, as described in the section "Wiring diagram, size 4" (connection version B).

#### Line cross section

- Line cross section between X2/X3 of the TAS10A and X2/X3 of the TPS10A:
  - Size 2 (TAS10A040) → 4 mm<sup>2</sup>
  - Size 4 (TAS10A160) → 16 mm<sup>2</sup>

#### Unit output



- Connect approved line cables only. Line cables made from **high-frequency litz wire** must **be connected by qualified personnel**.
- **Pipe-type cable lugs can only be connected to high-frequency litz wire by soldering with a powerful soldering iron (at least 200 W) or in a soldering bath. Pressing on is not permitted!**
- **For connection of line conductors see the notes in section "Wiring diagrams for connecting line conductors to TAS10A040 or TAS10A160."**

#### Cable routing

- Route **power cables close together** (cable ties, cable duct, etc.). **Avoid close proximity to sheet metal or other magnetic metals** (heating through eddy currents).  
Possible installation options include
  - Plastic duct or pipe on spacers
  - Spacing layer of aluminum sheet metal
- If the cables are **routed through walls** (control cabinet, etc.), you should try to have a **common screw fitting for supply and return conductor**. Install a duct board made of aluminum or plastic if this is not possible. Install the power and signal lines separately.

#### Shielding and earthing

- **Connect the shield** by the shortest possible route and make sure it is **earthed over a wide area at both ends**. To avoid ground loops, you can ground one end of the shield via a suppression capacitor (220 nF / 50 V). If using double-shielded cables, earth the outer shield on the unit end and the inner shield on the other end.
- Ground the **MOVITRANS®** and **all additional devices to meet the high-frequency guidelines**. To do so, provide a wide area metal-on-metal contact between the unit housing and ground (e.g. unpainted control cabinet mounting panel).



### 3.6 *UL compliant installation*

Note the following points for UL compliant installation:

- Only use copper cables with the **following temperature ranges** as connection cables:
  - For MOVITRANS® TAS10A (size 2 and 4) temperature range 60/75 °C
- **Permitted tightening torques** for MOVITRANS® power terminals:
  - Size 2 (TAS10A040)→Terminals X2, X3: 1.5 Nm (13.3 lb.in)
  - Size 2 (TAS10A040)→Terminals LA / LI: 8 Nm (70.80 lb.in)
  - Size 4 (TAS10A160)→All connection terminals: 14 Nm (124 lb.in)
  - Sizes 2 and 4 →All retaining screws for installation of the compensation capacitors: 8 Nm (70.80 lb.in)

You will find additional information on this topic in the section "Installation of compensation capacitors."



### 3.7 Wiring diagram, size 2 (TAS10A040)

#### Transformer module size 2

Connect the TAS10A040 transformer module as follows:

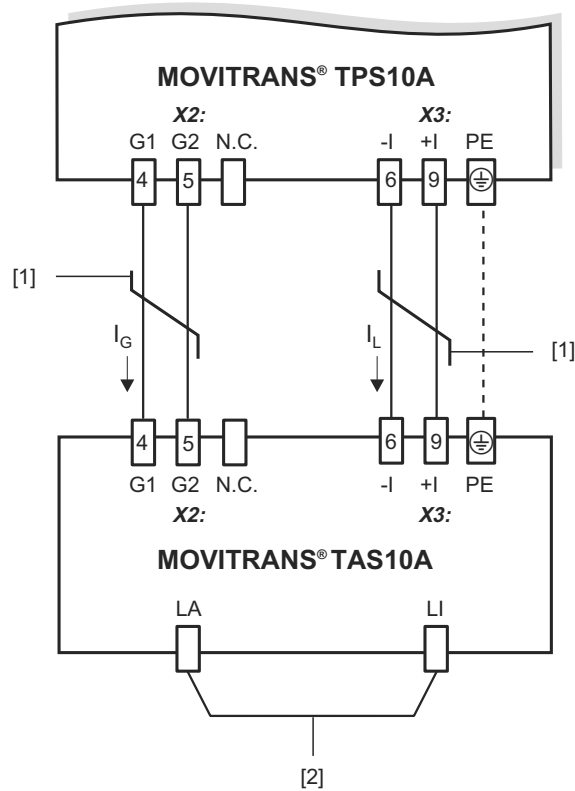


Figure 5: Wiring diagram for MOVITRANS® TAS10A040 (delivery condition)

54901AXX

- [1] Twisted cables  
[2] Short-circuit hoop (for startup of TAS10A040 **without** connected line conductors)

#### Description of terminal functions

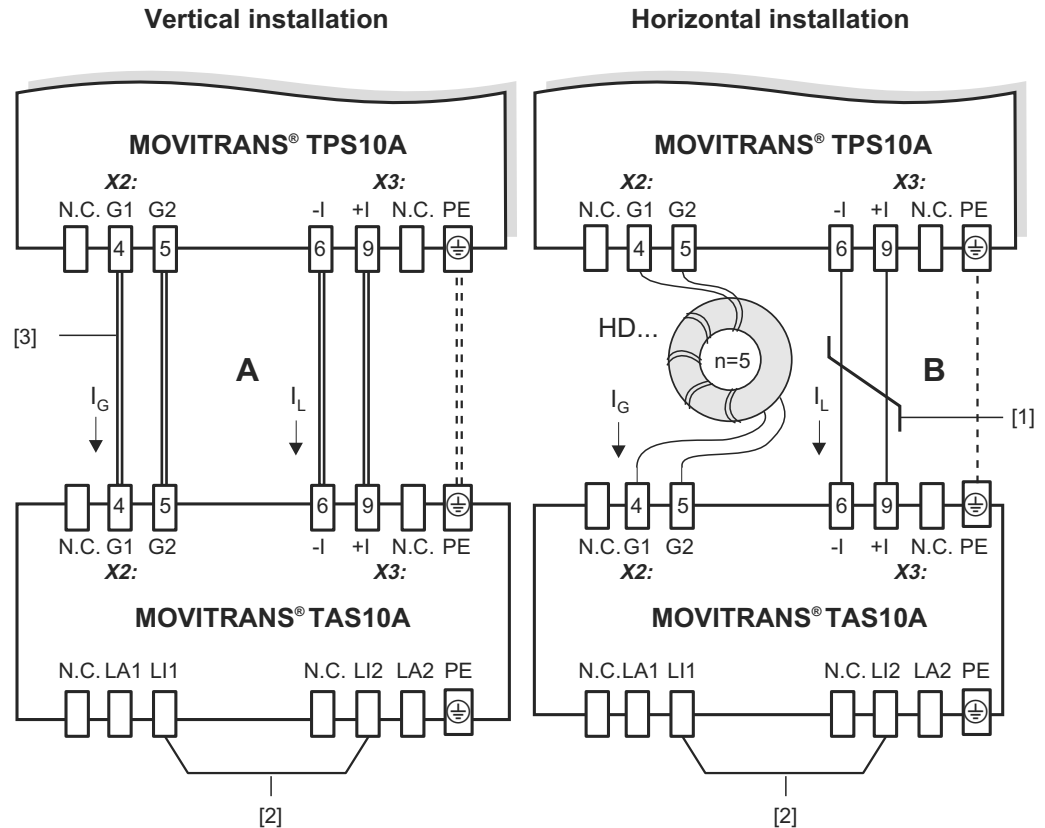
Terminal	Function
X2: 4/5 X3: 6/9	G1/G2 -I/+I Gyrator connection (→incoming from TPS10A X2:G1/G2) Current feedback (→ incoming from TPS10A X3:-I/+I)
LA LI	Connection return conductor Connection supply conductor



### 3.8 Wiring diagram, size 4 (TAS10A160)

#### Transformer module size 4

Connect the TAS10A160 transformer module as follows:



55534AEN

Figure 6: Wiring diagram for MOVITRANS® TAS10A160 (delivery condition)

- [1] Twisted cables
- [2] Short-circuit hoop (for startup of TAS10A160 **without** connected line conductors)
- [3] Connection conductor rails
- A Version A (TAS10A160 connected to TPS10A160 using connection conductor rails)
- B Version B (TAS10A160 connected to TPS10A160 using twisted cables)

#### Versions

The TAS10A160 transformer module can be connected to the TPS10A160 stationary converter using version A or B:

##### Version A

With this version, use standardized connection conductor rails to connect the TAS10A160 transformer module to the TPS10A160 stationary converter. The rails are included in the delivery scope of the TAS10A160 transformer module.





The following figure shows the preferred installation (vertically on top of one another) and the connection of the units using conductor rails:

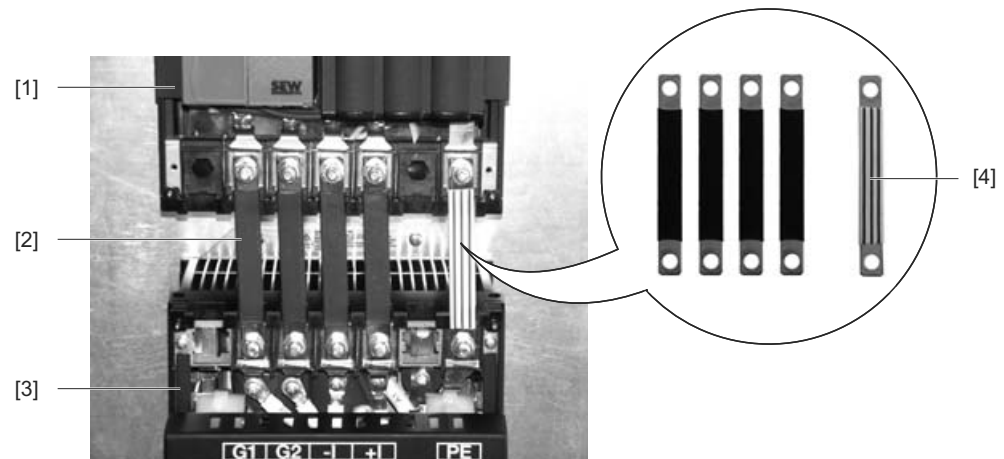


Figure 7: Connection conductor rails for MOVITRANS® TPS10A160 and TAS10A160

55306AXX

- [1] MOVITRANS® TPS10A160 stationary converter
- [2] Connection conductor rails
- [3] MOVITRANS® TAS10A160 transformer module
- [4] Connection conductor rails (detail view)

For more information on this topic, refer to the sections "Connection conductor rails", "Assembly and installation notes" and "Technical data."

#### Version B

With this version, you use twisted cables and connect the output choke HD003 at output X2:G1/G2 to link the TAS10A160 transformer module to the TPS10A160 stationary converter.

Output choke	HD003
Part number	813 558 4
Inside diameter d	88 mm (4.46 in)
For line cross sections	$\geq 16 \text{ mm}^2$ (AWG 6)

#### Description of terminal functions

Terminal	Function
X2: 4/5 X3: 6/9	G1/G2 -I/+I Gyrator connection (→incoming from TPS10A X2:G1/G2) Current feedback (→ incoming from TPS10A X3:-I/+I)
LA1 LI1 LA2 LI2	Connection first return conductor Connection first supply conductor Connection second return conductor Connection second supply conductor



## Installation

### Wiring diagram for connecting a line conductor to TAS10A040

#### 3.9 Wiring diagram for connecting a line conductor to TAS10A040

##### Components of the line conductor

The line conductor consists of a conductor loop that is made up of a supply conductor and a return conductor. The supply conductor is referred to as "LI" (line conductor inside); the return conductor is referred to as "LA" (line conductor outside). The return conductor is connected in the unit to the protective conductor potential (PE).

##### Connecting a line conductor to TAS10A040

Remove the short-circuit hoop between LA and LI before connecting the line conductor to TAS10A040.

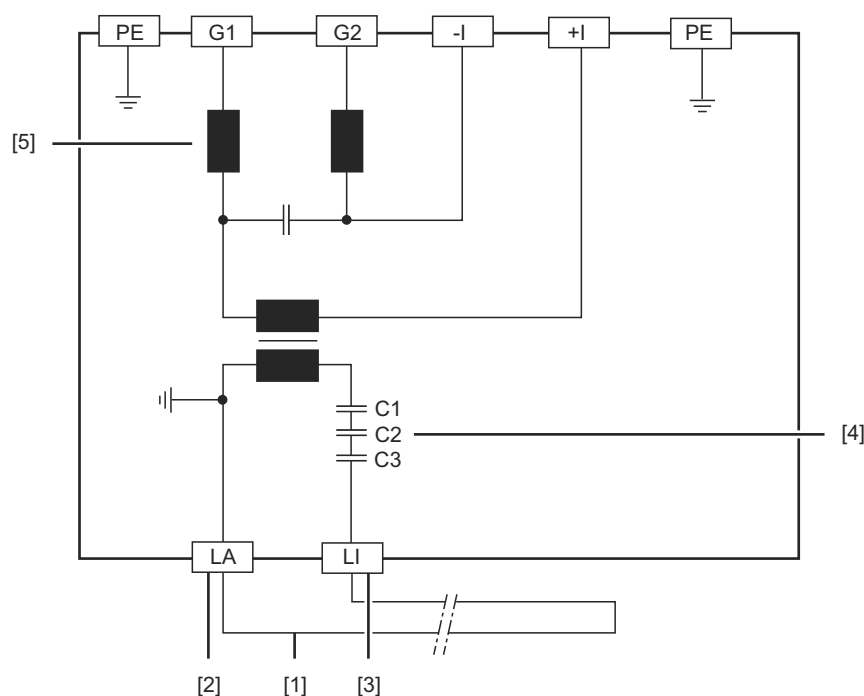


Figure 8: Wiring diagram for MOVITRANS® TAS10A040 with a line conductor

54904AXX

- [1] Line conductor
- [2] Connection of return conductor LA
- [3] Connection of supply conductor LI
- [4] Compensation capacitors
- [5] Gyrator



### 3.10 Wiring diagram for connecting a line conductor to TAS10A160

#### Number of line conductors

You can connect **one or two** line conductors to the TAS10A160 transformer module.

#### Connecting a line conductor to TAS10A160

When **connecting a line conductor**, make sure to connect it to **LA1/LI1**. **Remove the short-circuit hoop** between LI1 and LI2 prior to installation.

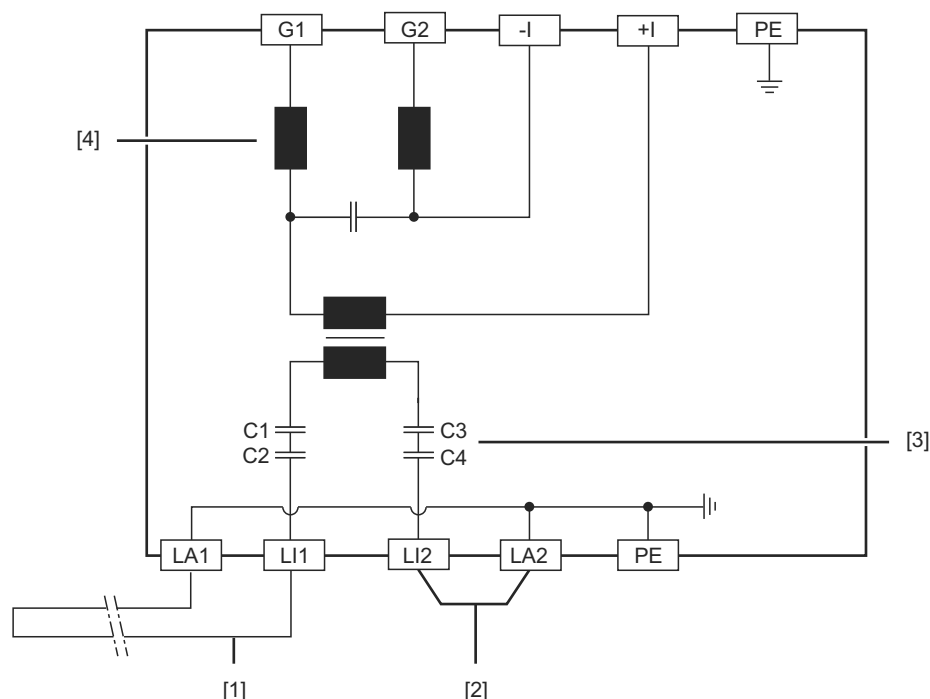


Figure 9: Wiring diagram for MOVITRANS® TAS10A160 with one line conductor

54905AXX

- [1] Connection of line conductor to LA1/LI1
- [2] Short-circuit hoop LI2/LA2
- [3] Compensation capacitors
- [4] Gyrator



**If you only connect one line conductor [1] to TAS10A160, you will have to reinstall the short-circuit hoop [2] between LI2 and LA2!**



## Installation

Wiring diagram for connecting a line conductor to TAS10A160

### Connecting two line conductors to TAS10A160

When **connecting two line conductors**, connect the **first to LA1/LI1** and the **second to LA2/LI2**. **Remove the short-circuit hoop** between LI1 and LI2 prior to installation.

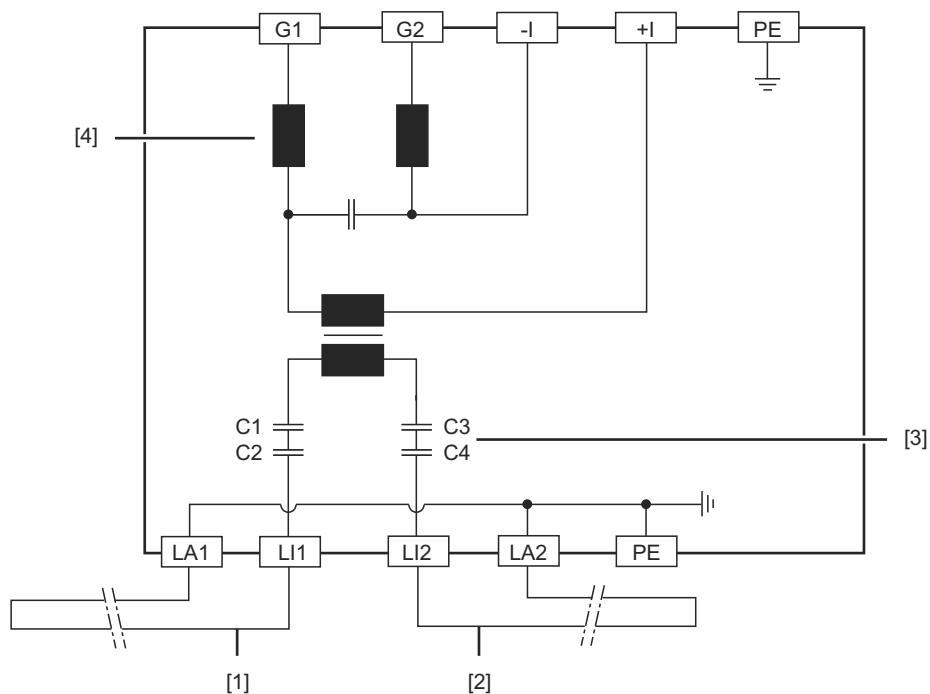


Figure 10: Wiring diagram for MOVITRANS® TAS10A16 with two line conductors

54906AXX

- [1] Connection of first line conductor to LA1/LI1
- [2] Connection of second line conductor to LA2/LI2
- [3] Compensation capacitors
- [4] Gyrator



### 3.11 Installing compensation capacitors in TAS10A

#### Before you start



Observe the following notes before installing or removing compensation capacitors:

- Observe the safety instructions!
- **Before removing the protective cover, disconnect the TPS10A and TAS10A units from the supply system.** Dangerous voltages may still be present for up to **10 minutes after mains disconnection.**
- The fact that the **operation LED V1** and other display elements are no longer illuminated on the TPS10A.. stationary converter **does not indicate** that the TPS10A.. and TAS10A.. units have been disconnected from the power supply and **do not carry any voltage.**
- **Installation or removal of the compensation capacitors is only permitted with vertical installation of units** (→ Section "Assembly and installation notes")!
- You can install the **compensation capacitors** in **TAS10A040** and **TAS10A160** units (→ Section "Technical data for compensation capacitors").
- **Use only the enclosed fastening material to install the compensation capacitors** (→ see following illustration)!

#### Scope of delivery for compensation capacitors

The scope of delivery for compensation capacitors from SEW-EURODRIVE includes the following components:

- Compensation capacitors (capacity 2  $\mu$ F, 4  $\mu$ F, 8  $\mu$ F, 16  $\mu$ F or 32  $\mu$ F)
- Short setscrews

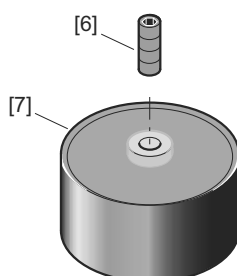


Figure 11: Scope of delivery for compensation capacitors

55265AXX

- [6] Short setscrew with hexagon socket SW4  
[7] Compensation capacitor (capacity 2  $\mu$ F, 4  $\mu$ F, 8  $\mu$ F, 16  $\mu$ F or 32  $\mu$ F)

Compensation capacitors are available individually or as a complete package.



## Installation

### Installing compensation capacitors in TAS10A

#### **Removing the protective cover and housing cover from TAS10A040**

Before you install the compensation capacitors, you must remove the protective cover and housing cover from the TAS10A040 transformer module:

Proceed as follows:

- Remove the upper and lower protective cover of the TAS10A040. You will first have to loosen the two retaining screws [1].
- Remove the housing cover of the TAS10A040. To do so, loosen the two retaining screws [2].

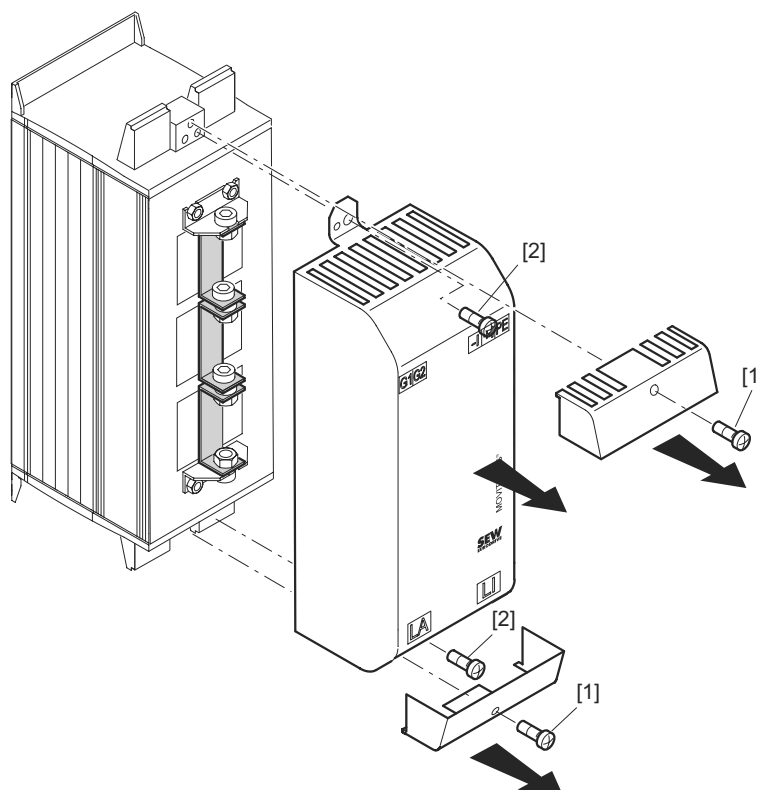


Figure 12: Removing the protective cover and housing cover from MOVITRANS® TAS10A040 53764AXX

- [1] Retaining screws for upper / lower protective cover  
[2] Retaining screws for upper / lower housing cover

#### **Installing the protective cover and housing cover on TAS10A040**

Follow the instructions in reverse order to install the protective cover and the housing cover on the TAS10A040 transformer module:

- Attach the housing cover to TAS10A040. To do so, tighten the two retaining screws [2].
- Attach the upper and lower protective cover of the TAS10A040. To do so, tighten the two retaining screws [1].



### **Delivery condition of the TAS10A040**

Three conductor rails [3] are installed in the TAS10A040 transformer module **on delivery**.

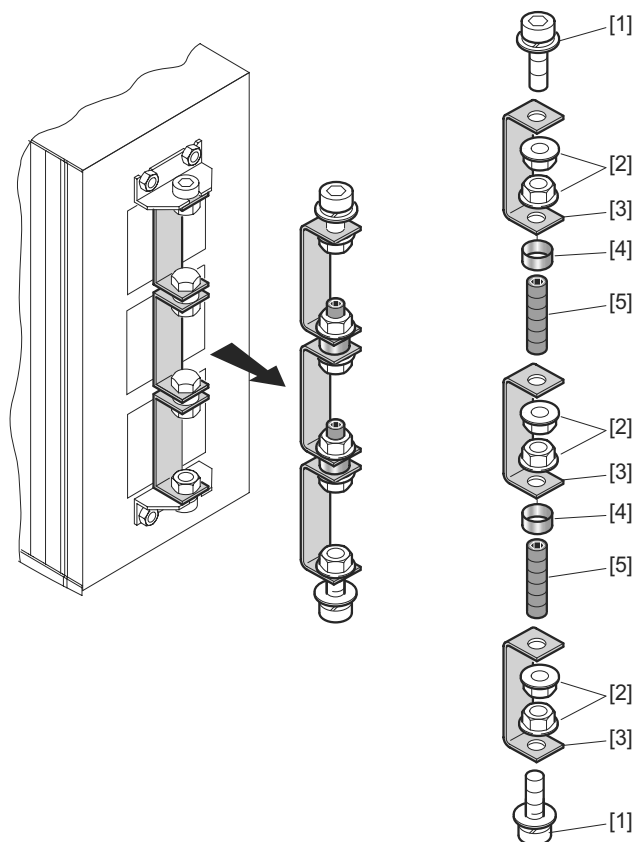


Figure 13: MOVITRANS® TAS10A040 delivery condition

53773AXX

- [1] Machine screw with SW5 hexagon socket
- [2] M8 combination nut with movable disc
- [3] Conductor rail
- [4] Short spacer bushing
- [5] Long setscrew with SW4 hexagon socket

### **Installing compensation capacitors in TAS10A040**

Proceed as follows to install the compensation capacitors:

- **Always remove all three conductor rails completely.**
- To do so, loosen the socket head screws [1] on the upper and lower conductor rails [3].



## Installation

### Installing compensation capacitors in TAS10A

#### Installation options in TAS10A040

The following options are available for installing the compensation capacitors in the TAS10A040 transformer module.

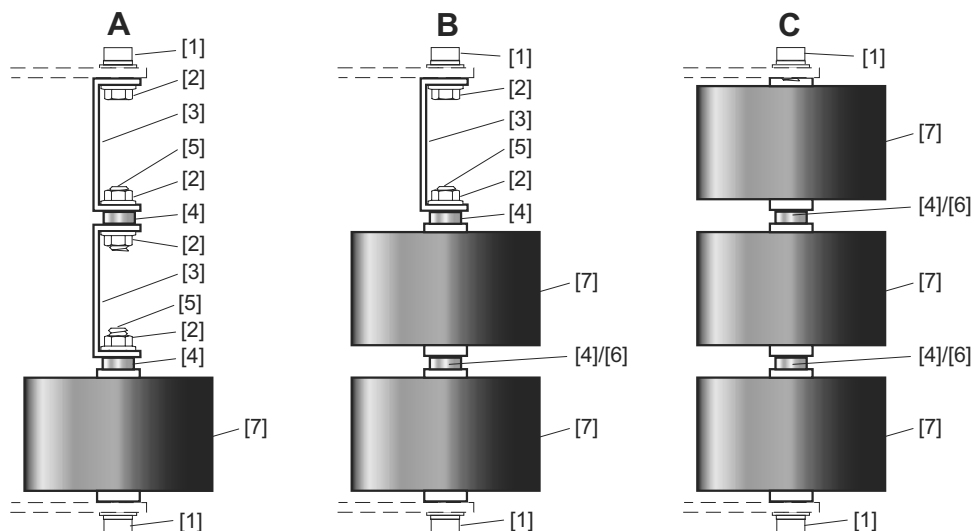


Figure 14: Installation options for compensation capacitors in MOVITRANS® TAS10A040 55261AXX

- [1] Machine screw with SW5 hexagon socket
- [2] M8 combination nut with movable disc
- [3] Conductor rail
- [4] Short spacer bushing
- [5] Long setscrew with SW4 hexagon socket
- [6] Short setscrew with hexagon socket SW4
- [7] Compensation capacitor (capacity 2  $\mu\text{F}$ , 4  $\mu\text{F}$ , 8  $\mu\text{F}$ , 16  $\mu\text{F}$  or 32  $\mu\text{F}$ )

- A Version A (one compensation capacitor)
- B Version B (two compensation capacitors)
- C Version C (three compensation capacitors)



**Always assemble the respective installation version outside the TAS10A040 and reinstall it completely in the TAS10A040 afterwards.**





**TAS10A040  
installation  
option with 3  
compensation  
capacitors**

A maximum of 3 compensation capacitors can be installed in the TAS10A040 transformer module to perform compensation for a connected line conductor.

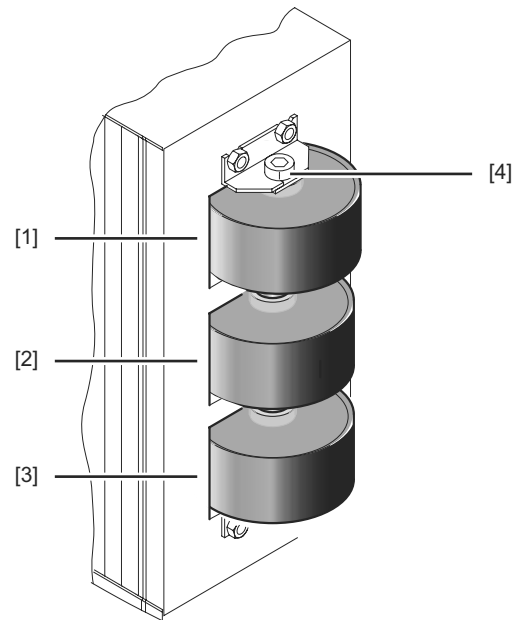


Figure 15: MOVITRANS® TAS10A040 with 3 compensation capacitors

55263AXX

- [1] Capacity C1
- [2] Capacity C2
- [3] Capacity C3
- [4] Machine screw with SW5 hexagon socket



## Installation

### Installing compensation capacitors in TAS10A

#### **Removing the protective cover and housing cover from TAS10A160**

Before you can install the compensation capacitors, you must remove the protective cover and housing cover from the TAS10A160 transformer module:

Proceed as follows:

- Remove the upper and lower protective cover of the TAS10A160. Start by loosening the four retaining screws [1].
- Remove the housing cover of the TAS10A160. Start by loosening the four retaining screws [2].

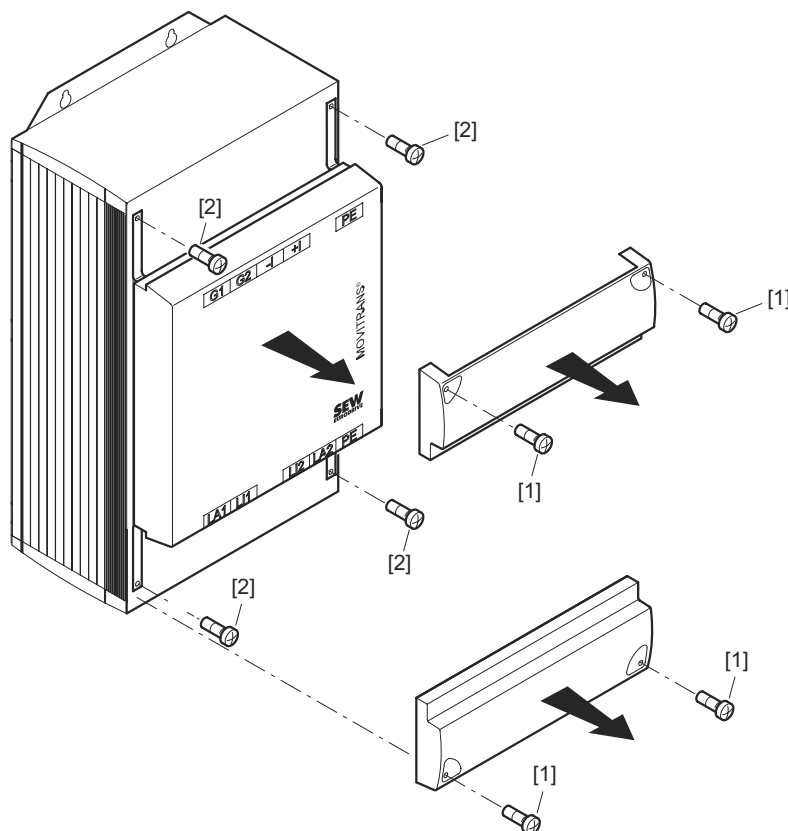


Figure 16: Removing the protective cover and housing cover from MOVITRANS<sup>®</sup> TAS10A160 53765AXX

- [1] Retaining screws for upper / lower protective cover  
[2] Retaining screws for upper / lower housing cover

#### **Installing the protective cover and housing cover on TAS10A160**

Follow the instructions in reverse order to install the protective cover and the housing cover on the TAS10A160 transformer module:

- Attach the housing cover to TAS10A160. To do so, tighten the four retaining screws [2].
- Attach the upper and lower protective cover of the TAS10A160. To do so, tighten the four retaining screws [1].



**Delivery condition of the TAS10A160**

Four conductor rails (two by two) [3] are installed in the TAS10A160 **on delivery** .

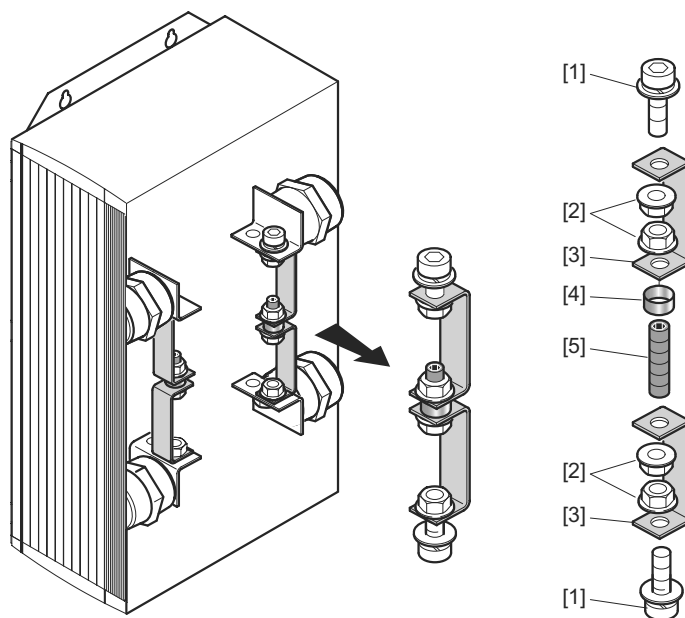


Figure 17: MOVITRANS® TAS10A160 delivery condition

53776AXX

- [1] Machine screw with SW5 hexagon socket
- [2] M8 combination nut with movable disc
- [3] Conductor rail
- [4] Short spacer bushing
- [5] Long setscrew with SW4 hexagon socket

**Installing compensation capacitors in TAS10A160**

Proceed as follows to install the compensation capacitors:

- **Always remove the two-by-two conductor rail combinations [3] completely.**
- To do so, loosen the socket head screws [1] on the upper and lower conductor rails [3].



## Installation

### Installing compensation capacitors in TAS10A

#### Installation options in TAS10A160

The following options are available for installing the compensation capacitors in the TAS10A160 transformer module.

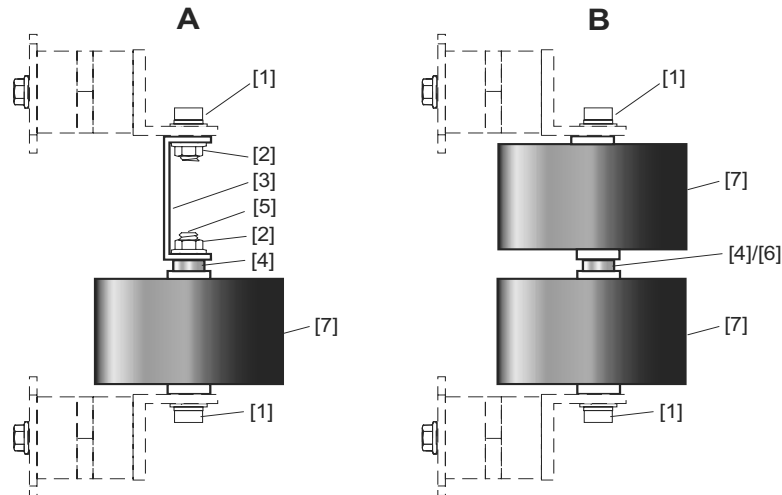


Figure 18: Installation options for compensation capacitors in MOVITRANS® TAS10A160 55266AXX

- [1] Machine screw with SW5 hexagon socket
- [2] M8 combination nut with movable disc
- [3] Conductor rail
- [4] Short spacer bushing
- [5] Long setscrew with SW4 hexagon socket
- [6] Short setscrew with hexagon socket SW4
- [7] Compensation capacitor (capacity 2  $\mu\text{F}$ , 4  $\mu\text{F}$ , 8  $\mu\text{F}$ , 16  $\mu\text{F}$  or 32  $\mu\text{F}$ )

A Version A (single compensation capacitor)

B Version B (two compensation capacitors)



Note that only the installation option with one conductor rail pair is shown here. The data applies to the other pair as well.

**Always assemble the respective combination outside the TAS10A160 and reinstall it completely in the TAS10A160 afterwards.**



**TAS10A160  
installation  
option with 4  
compensation  
capacitors**

A maximum of 4 compensation capacitors can be installed in the TAS10A160 transformer module to perform compensation for a connected line conductor.

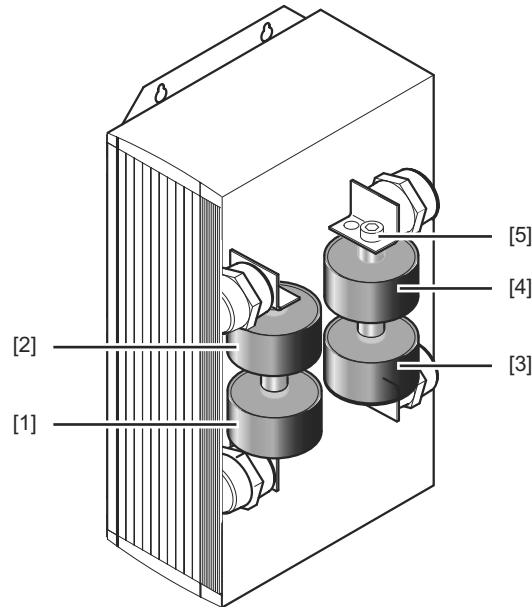


Figure 19: MOVITRANS® TAS10A160 with 4 compensation capacitors

55267AXX

- [1] Capacity C1
- [2] Capacity C2
- [3] Capacity C3
- [4] Capacity C4
- [5] Machine screw with SW5 hexagon socket



4      **Operation and Service**  
4.1    **Electronics service**

**Send in for repair**      Contact the **SEW-EURODRIVE Electronics Service in Bruchsal** if a fault **cannot be rectified**.

When contacting the electronics service, please always quote the digits of the service code (→ service label).

Provide the following information when sending the unit in for repair:
<ul style="list-style-type: none"> <li>– Serial number (→ nameplate)</li> <li>– Unit designation</li> <li>– Service code (→ service label)</li> <li>– Brief description of the application</li> <li>– Connected load</li> <li>– Nature of the error</li> <li>– Accompanying circumstances</li> <li>– Your own presumption of what has happened</li> <li>– Any unusual events preceding the problem, etc.</li> </ul>

**Service label**      The TAS10A transformer module is equipped with a service label that is attached next to the nameplate. The type designation, service code and the component designation of TAS10A are listed on the service label.

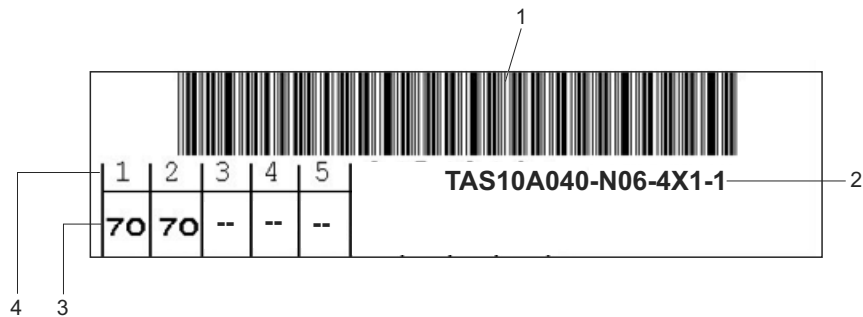
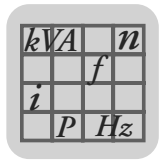


Figure 20: Service label

53712AXX

- [1]      Service label
- [2]      Type designation
- [3]      Service code
- [4]      Component / part



## 5 Technical Data

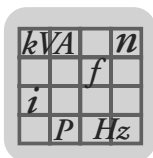
### 5.1 General information

The following table contains the technical data that applies to all MOVITRANS® TAS10A units regardless of size and power rating.

MOVITRANS® TAS10A	All sizes
Interference immunity	Meets EN 61800-3
Interference emission with EMC-compliant installation	Class A limit according to EN 55011 and EN 55014, meets EN 61800-3
Ambient temperature $\vartheta$ Climate class	0 °C... +40 °C EN 60721-3-3, class 3K3
Storage and shipping temperature $\vartheta_L$	–25 °C ... +75 °C (EN 60721-3-3, class 3K3)
Enclosure Size 2 (TAS10A040) Size 4 (TAS10A160)	IP10 IP00, IP10 with installed touch guard
Pollution class	2 according to IEC 60664-1 (VDE 0110-1)
Operating mode	DB (EN 60149-1-1 and 1-3)
Resistance to vibration	Fulfills EN 50178
Relative humidity	≤ 95 %, no moisture condensation

### 5.2 Unit data

	TAS10A040-		TAS10A160-	
MOVITRANS® TAS10A	N06-4X1-1	N08-4X1-1	N06-4X1-1	N08-4X1-1
Part number	13000241	13000349	13000268	13000365
Input				
Rated input voltage	V <sub>E_N</sub>	400 V <sub>AC</sub>		
Input frequency	f <sub>I</sub>	25 kHz		
Rated input current	I <sub>G_N</sub>	10 A <sub>AC</sub>	40 A <sub>AC</sub>	
Load current	I <sub>L</sub>	7.5 A <sub>AC</sub>	30 A <sub>AC</sub>	
Output				
Rated output power	P <sub>N</sub>	4 kW	16 kW	
Rated output current	I <sub>A_N</sub>	60 A <sub>AC</sub>	85 A <sub>AC</sub>	60 A <sub>AC</sub> 85 A <sub>AC</sub>
Rated output voltage	U <sub>A_N</sub>	83 V <sub>AC</sub>	59 V <sub>AC</sub>	333 V <sub>AC</sub> 235 V <sub>AC</sub>
Output frequency	f <sub>A</sub>	25 kHz		
Gyrator impedance	X <sub>G</sub>	53.3 Ω	13.3 Ω	
General				
Power loss at P <sub>N</sub> P <sub>V</sub>		50 W	200 W	
Cooling air consumption		20 m³/h (12 ft³/min)	40 m³/h (24 ft³/min)	
Mass		8.8 kg (19.36 lb)	31.6 kg (69.52 lb)	
Dimensions	W × H × T	130 × 336 × 210 mm (5.12 × 13.19 × 8.27 in)		280 × 522 × 203 mm (11.02 × 20.55 × 7.99 in)



### 5.3 Compensation capacitors



The compensation capacitors can be installed in both TAS10A040 **and** TAS10A160 units.

Compensation capacitors are available individually or as a complete set.

#### Compensation capacitors for a line conductor current of 60 A or 85 A

Single  
compensation  
capacitors

Capacity C [ $\mu\text{F}$ ]	Capacitive reactance $X_C$ [ $\Omega$ ]	Type designation	Part number
2	3.2	TCS10A-008-020-0	12 702 25 0
4	1.6	TCS10A-008-040-0	12 702 26 9
8	0.8	TCS10A-008-080-0	12 702 27 7
16	0.4	TCS10A-008-160-0	12 702 28 5
32	0.2	TCS10A-008-320-0	12 702 29 3

Complete set of  
compensation  
capacitors

Capacity C [ $\mu\text{F}$ ]	Capacitive reactance $X_C$ [ $\Omega$ ]	Type designation	Part number
2, 4, 8, 16 and 32	3.2, 1.6, 0.8, 0.4 and 0.2	TCS10A-008-XXX-0	12 702 30 7

### 5.4 Dimensions

#### MOVITRANS® TAS10A040 – Size 2

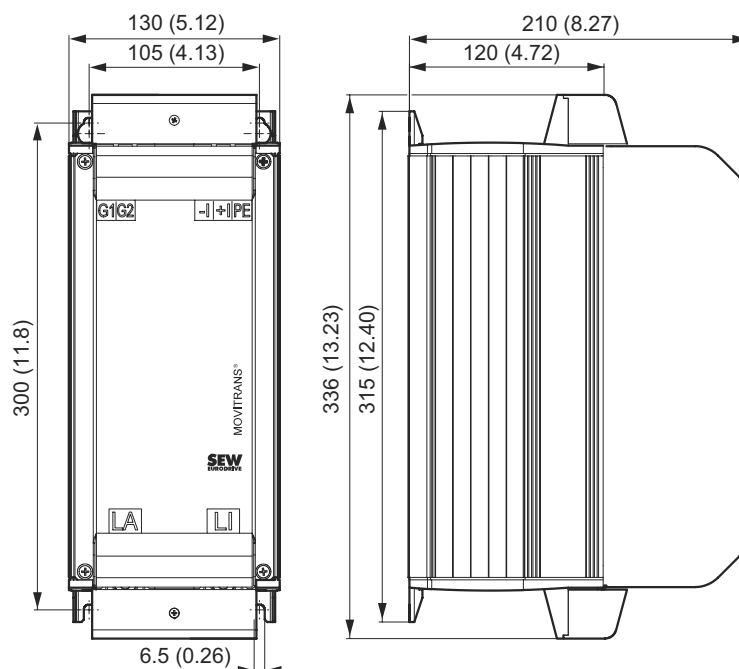


Figure 21: Dimensions for MOVITRANS® size 2, dimensions in mm (in)

53706AXX



**MOVITRANS® TAS10A160 – Size 4**

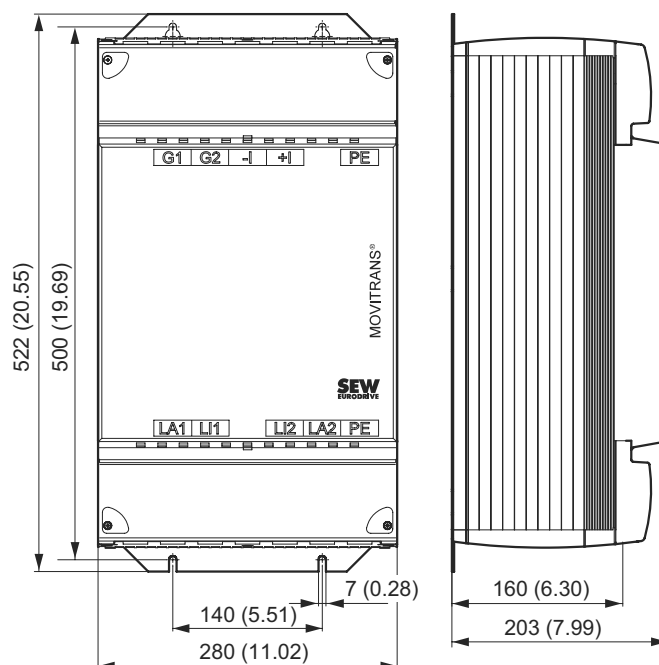


Figure 22: Dimensions for MOVITRANS® size 4, dimensions in mm (in)

53707AXX

**Connection conductor rail**

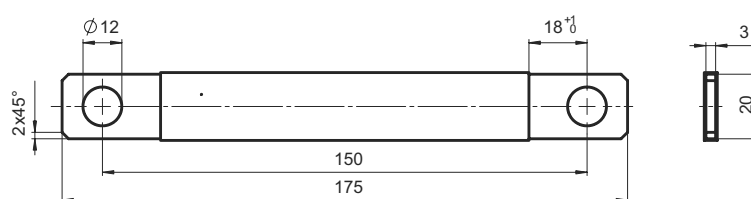


Figure 23: Dimensions for connection conductor rail, in mm

54912AXX



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Sales Service	Dublin	Alperston Engineering Ltd. 48 Moyle Road Dublin Industrial Estate Glasnevin, Dublin 11	Tel. +353 1 830-6277 Fax +353 1 830-6458
Israel			
Sales	Tel-Aviv	Liraz Handasa Ltd. Ahofer Str 34B / 228 58858 Holon	Tel. +972 3 5599511 Fax +972 3 5599512 lirazhandasa@barak-online.net
Italy			
Assembly Sales Service	Milano	SEW-EURODRIVE di R. Blicke & Co.s.a.s. Via Bernini,14 I-20020 Solaro (Milano)	Tel. +39 2 96 9801 Fax +39 2 96 799781 sewit@sew-eurodrive.it
Ivory Coast			
Sales	Abidjan	SICA Ste industrielle et commerciale pour l'Afrique 165, Bld de Marseille B.P. 2323, Abidjan 08	Tel. +225 2579-44 Fax +225 2584-36
Japan			
Assembly Sales Service	Toyoda-cho	SEW-EURODRIVE JAPAN CO., LTD 250-1, Shimoman-no, Toyoda-cho, Iwata gun Shizuoka prefecture, 438-0818	Tel. +81 538 373811 Fax +81 538 373814 sewjapan@sew-eurodrive.co.jp
Korea			
Assembly Sales Service	Ansan-City	SEW-EURODRIVE KOREA CO., LTD. B 601-4, Banweol Industrial Estate Unit 1048-4, Shingil-Dong Ansan 425-120	Tel. +82 31 492-8051 Fax +82 31 492-8056 master@sew-korea.co.kr
Latvia			
Sales	Riga	SIA Alas-Kuul Katlakalna 11C LV-1073 Riga	Tel. +371 7139386 Fax +371 7139386 info@alas-kuul.ee
Lebanon			
Sales	Beirut	Gabriel Acar & Fils sarl B. P. 80484 Bourj Hammoud, Beirut	Tel. +961 1 4947-86 +961 1 4982-72 +961 3 2745-39 Fax +961 1 4949-71 gacar@beirut.com



<b>Lithuania</b>			
<b>Sales</b>	<b>Alytus</b>	UAB Irseva Merkines g. 2A LT-62252 Alytus	Tel. +370 315 79204 Fax +370 315 56175 info@irseva.lt www.sew-eurodrive.lt
<b>Luxembourg</b>			
<b>Assembly Sales Service</b>	<b>Brüssel</b>	CARON-VECTOR S.A. Avenue Eiffel 5 B-1300 Wavre	Tel. +32 10 231-311 Fax +32 10 231-336 http://www.caron-vector.be info@caron-vector.be
<b>Malaysia</b>			
<b>Assembly Sales Service</b>	<b>Johore</b>	SEW-EURODRIVE SDN BHD No. 95, Jalan Seroja 39, Taman Johor Jaya 81000 Johor Bahru, Johor West Malaysia	Tel. +60 7 3549409 Fax +60 7 3541404 kchtan@pd.jaring.my
<b>Mexico</b>			
<b>Assembly Sales Service</b>	<b>Queretaro</b>	SEW-EURODRIVE, Sales and Distribution, S. A. de C. V. Privada Tequisquiapan No. 102 Parque Ind. Queretaro C. P. 76220 Queretaro, Mexico	Tel. +52 442 1030-300 Fax +52 442 1030-301 scmexico@seweurodrive.com.mx
<b>Morocco</b>			
<b>Sales</b>	<b>Casablanca</b>	S. R. M. Société de Réalisations Mécaniques 5, rue Emir Abdelkader 05 Casablanca	Tel. +212 2 6186-69 + 6186-70 + 6186-71 Fax +212 2 6215-88 srm@marocnet.net.ma
<b>Netherlands</b>			
<b>Assembly Sales Service</b>	<b>Rotterdam</b>	VECTOR Aandrijftechniek B.V. Industrieweg 175 NL-3044 AS Rotterdam Postbus 10085 NL-3004 AB Rotterdam	Tel. +31 10 4463-700 Fax +31 10 4155-552 http://www.vector.nu info@vector.nu
<b>New Zealand</b>			
<b>Assembly Sales Service</b>	<b>Auckland</b>	SEW-EURODRIVE NEW ZEALAND LTD. P.O. Box 58-428 82 Greenmount drive East Tamaki Auckland	Tel. +64 9 2745627 Fax +64 9 2740165 sales@sew-eurodrive.co.nz
	<b>Christchurch</b>	SEW-EURODRIVE NEW ZEALAND LTD. 10 Settlers Crescent, Ferrymead Christchurch	Tel. +64 3 384-6251 Fax +64 3 384-6455 sales@sew-eurodrive.co.nz
<b>Norway</b>			
<b>Assembly Sales Service</b>	<b>Moss</b>	SEW-EURODRIVE A/S Solgaard skog 71 N-1599 Moss	Tel. +47 69 241-020 Fax +47 69 241-040 sew@sew-eurodrive.no
<b>Peru</b>			
<b>Assembly Sales Service</b>	<b>Lima</b>	SEW DEL PERU MOTORES REDUCTORES S.A.C. Los Calderos, 120-124 Urbanizacion Industrial Vulcano, ATE, Lima	Tel. +51 1 3495280 Fax +51 1 3493002 sewperu@sew-eurodrive.com.pe
<b>Poland</b>			
<b>Assembly Sales Service</b>	<b>Lodz</b>	SEW-EURODRIVE Polska Sp.z.o.o. ul. Techniczna 5 PL-92-518 Lodz	Tel. +48 42 67710-90 Fax +48 42 67710-99 http://www.sew-eurodrive.pl sew@sew-eurodrive.pl



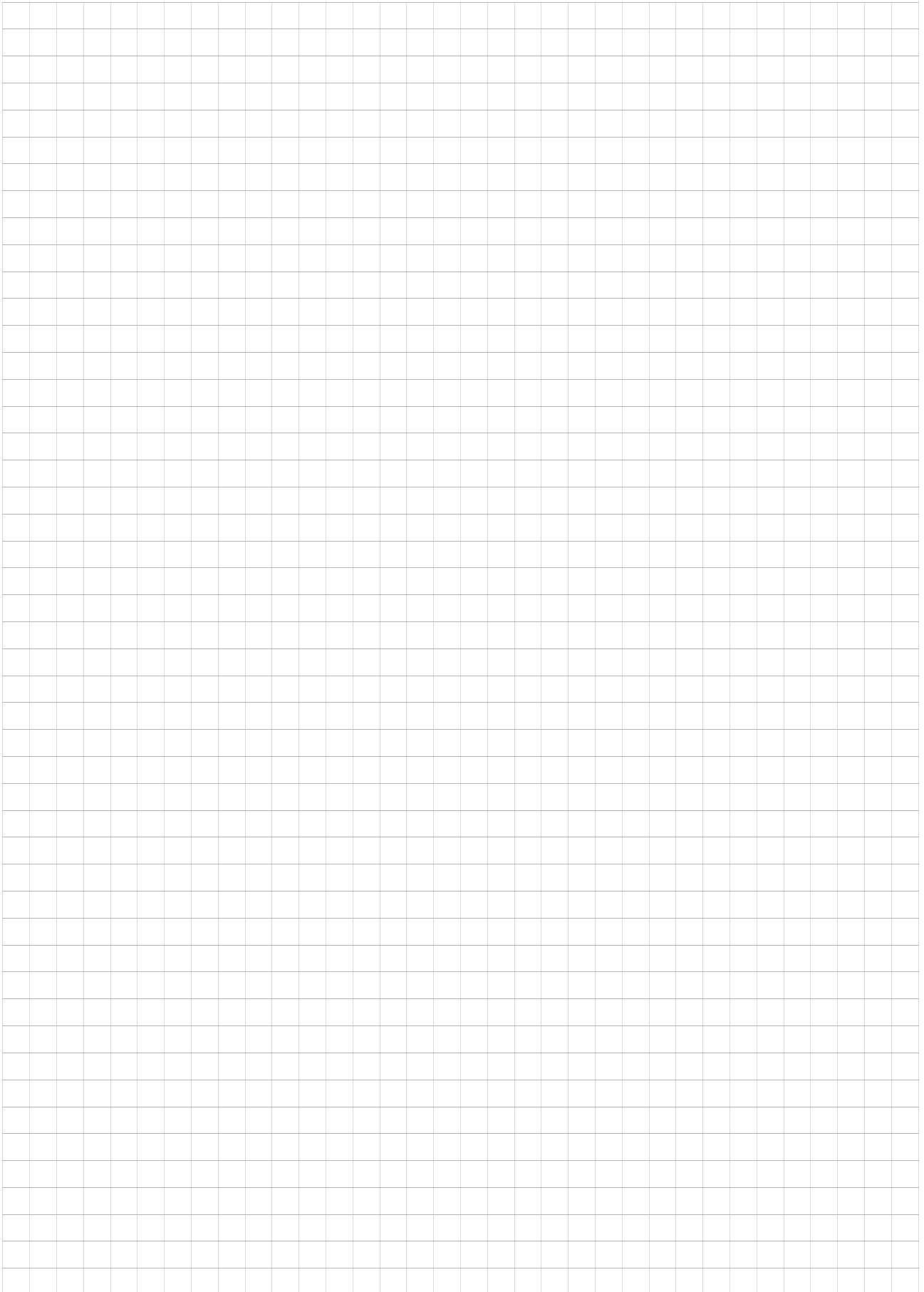
## Address List

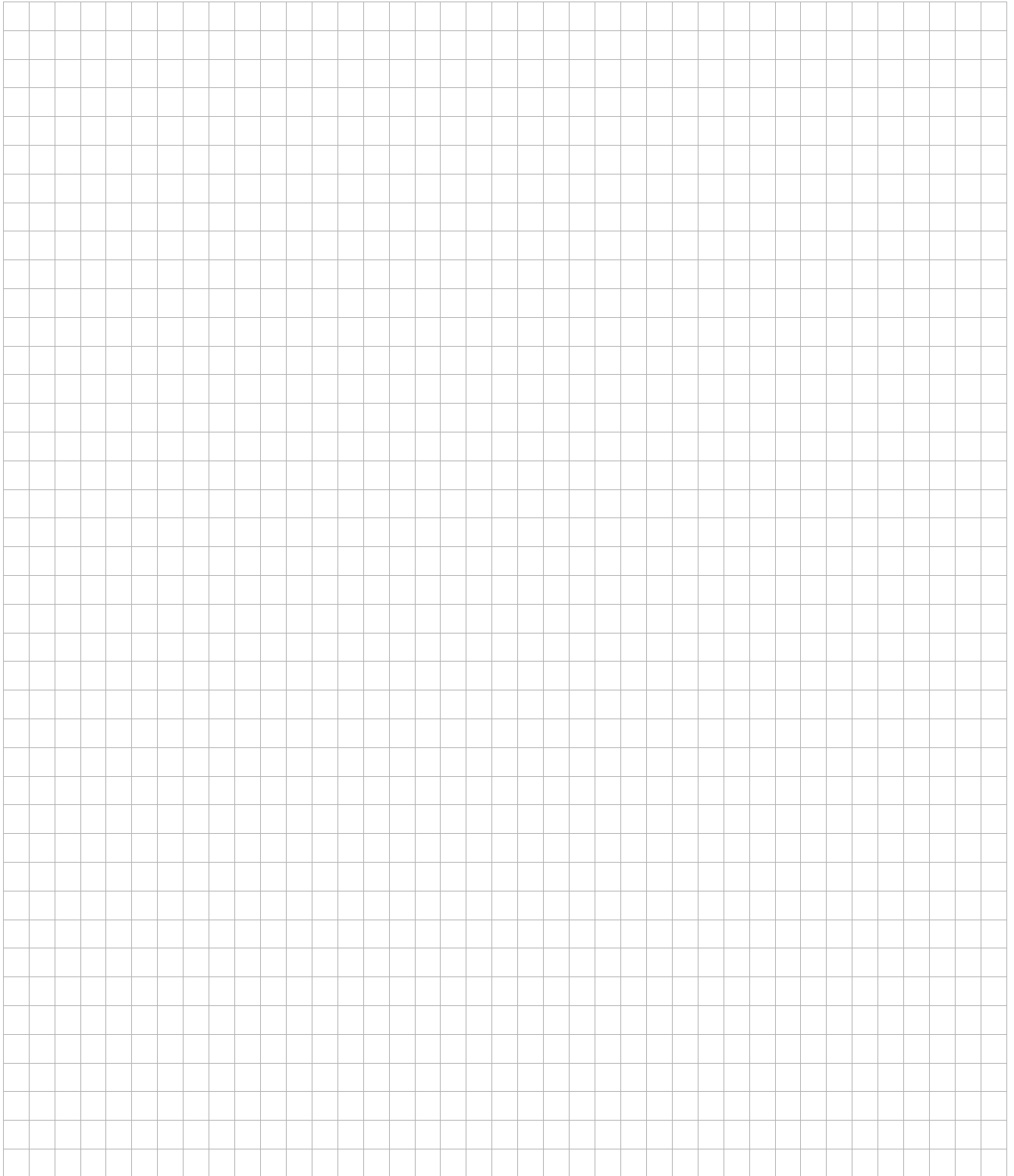
Portugal			
Assembly Sales Service	Coimbra	SEW-EURODRIVE, LDA. Apartado 15 P-3050-901 Mealhada	Tel. +351 231 20 9670 Fax +351 231 20 3685 <a href="http://www.sew-eurodrive.pt">http://www.sew-eurodrive.pt</a> <a href="mailto:infosew@sew-eurodrive.pt">infosew@sew-eurodrive.pt</a>
Romania			
Sales Service	Bucuresti	Sialco Trading SRL str. Madrid nr.4 011785 Bucuresti	Tel. +40 21 230-1328 Fax +40 21 230-7170 <a href="mailto:sialco@sialco.ro">sialco@sialco.ro</a>
Russia			
Sales	St. Petersburg	ZAO SEW-EURODRIVE P.O. Box 263 RUS-195220 St. Petersburg	Tel. +7 812 5357142 +812 5350430 Fax +7 812 5352287 <a href="http://www.sew-eurodrive.ru">http://www.sew-eurodrive.ru</a> <a href="mailto:sew@sew-eurodrive.ru">sew@sew-eurodrive.ru</a>
Senegal			
Sales	Dakar	SENEMECA Mécanique Générale Km 8, Route de Rufisque B.P. 3251, Dakar	Tel. +221 849 47-70 Fax +221 849 47-71 <a href="mailto:senemeca@sentoo.sn">senemeca@sentoo.sn</a>
Serbia and Montenegro			
Sales	Beograd	DIPAR d.o.o. Kajmakcalanska 54 SCG-11000 Beograd	Tel. +381 11 3088677 / +381 11 3088678 Fax +381 11 3809380 <a href="mailto:dipar@yubc.net">dipar@yubc.net</a>
Singapore			
Assembly Sales Service	Singapore	SEW-EURODRIVE PTE. LTD. No 9, Tuas Drive 2 Jurong Industrial Estate Singapore 638644	Tel. +65 68621701 Fax +65 68612827 <a href="mailto:sewsingapore@sew-eurodrive.com">sewsingapore@sew-eurodrive.com</a>
Slovakia			
Sales	Sereď	SEW-Eurodrive SK s.r.o. Trnavská 920 SK-926 01 Sereď	Tel. +421 31 7891311 Fax +421 31 7891312 <a href="mailto:sew@sew-eurodrive.sk">sew@sew-eurodrive.sk</a>
Slovenia			
Sales Service	Celje	Pakman - Pogonska Tehnika d.o.o. Ul. XIV. divizije 14 SLO – 3000 Celje	Tel. +386 3 490 83-20 Fax +386 3 490 83-21 <a href="mailto:pakman@siol.net">pakman@siol.net</a>
South Africa			
Assembly Sales Service	Johannesburg	SEW-EURODRIVE (PROPRIETARY) LIMITED Eurodrive House Cnr. Adcock Ingram and Aerodrome Roads Aeroton Ext. 2 Johannesburg 2013 P.O.Box 90004 Bertsham 2013	Tel. +27 11 248-7000 Fax +27 11 494-3104 <a href="mailto:dross@sew.co.za">dross@sew.co.za</a>
	Capetown	SEW-EURODRIVE (PROPRIETARY) LIMITED Rainbow Park Cnr. Racecourse & Omuramba Road Montague Gardens Cape Town P.O.Box 36556 Chempet 7442 Cape Town	Tel. +27 21 552-9820 Fax +27 21 552-9830 Telex 576 062 <a href="mailto:dswanepoel@sew.co.za">dswanepoel@sew.co.za</a>
	Durban	SEW-EURODRIVE (PROPRIETARY) LIMITED 2 Monaceo Place Pinetown Durban P.O. Box 10433, Ashwood 3605	Tel. +27 31 700-3451 Fax +27 31 700-3847 <a href="mailto:dtait@sew.co.za">dtait@sew.co.za</a>





<b>Spain</b>			
<b>Assembly Sales Service</b>	<b>Bilbao</b>	SEW-EURODRIVE ESPAÑA, S.L. Parque Tecnológico, Edificio, 302 E-48170 Zamudio (Vizcaya)	Tel. +34 9 4431 84-70 Fax +34 9 4431 84-71 sew.spain@sew-eurodrive.es
<b>Sweden</b>			
<b>Assembly Sales Service</b>	<b>Jönköping</b>	SEW-EURODRIVE AB Gnejsvägen 6-8 S-55303 Jönköping Box 3100 S-55003 Jönköping	Tel. +46 36 3442-00 Fax +46 36 3442-80 http://www.sew-eurodrive.se info@sew-eurodrive.se
<b>Switzerland</b>			
<b>Assembly Sales Service</b>	<b>Basel</b>	Alfred Imhof A.G. Jurastrasse 10 CH-4142 Münchenstein bei Basel	Tel. +41 61 41717-17 Fax +41 61 41717-00 http://www.imhof-sew.ch info@imhof-sew.ch
<b>Thailand</b>			
<b>Assembly Sales Service</b>	<b>Chon Buri</b>	SEW-EURODRIVE (Thailand) Ltd. Bangpakong Industrial Park 2 700/456, Moo.7, Tambol Donhuaroh Muang District Chon Buri 20000	Tel. +66 38 454281 Fax +66 38 454288 sewthailand@sew-eurodrive.co.th
<b>Tunisia</b>			
<b>Sales</b>	<b>Tunis</b>	T. M.S. Technic Marketing Service 7, rue Ibn El Heithem Z.I. SMMT 2014 Mégrine Erriadh	Tel. +216 1 4340-64 + 1 4320-29 Fax +216 1 4329-76
<b>Turkey</b>			
<b>Assembly Sales Service</b>	<b>Istanbul</b>	SEW-EURODRIVE Hareket Sistemleri Sirketi Bagdat Cad. Koruma Cikmazi No. 3 TR-34846 Maltepe ISTANBUL	Tel. +90 216 4419163 + 216 4419164 + 216 3838014 Fax +90 216 3055867 sew@sew-eurodrive.com.tr
<b>USA</b>			
<b>Production Assembly Sales Service</b>	<b>Greenville</b>	SEW-EURODRIVE INC. 1295 Old Spartanburg Highway P.O. Box 518 Lyman, S.C. 29365	Tel. +1 864 439-7537 Fax Sales +1 864 439-7830 Fax Manuf. +1 864 439-9948 Fax Ass. +1 864 439-0566 Telex 805 550 http://www.seweurodrive.com cslyman@seweurodrive.com
<b>Assembly Sales Service</b>	<b>San Francisco</b>	SEW-EURODRIVE INC. 30599 San Antonio St. Hayward, California 94544-7101	Tel. +1 510 487-3560 Fax +1 510 487-6381 cshayward@seweurodrive.com
	<b>Philadelphia/PA</b>	SEW-EURODRIVE INC. Pureland Ind. Complex 2107 High Hill Road, P.O. Box 481 Bridgeport, New Jersey 08014	Tel. +1 856 467-2277 Fax +1 856 845-3179 csbridgeport@seweurodrive.com
	<b>Dayton</b>	SEW-EURODRIVE INC. 2001 West Main Street Troy, Ohio 45373	Tel. +1 937 335-0036 Fax +1 937 440-3799 cstroy@seweurodrive.com
	<b>Dallas</b>	SEW-EURODRIVE INC. 3950 Platinum Way Dallas, Texas 75237	Tel. +1 214 330-4824 Fax +1 214 330-4724 csdallas@seweurodrive.com
Additional addresses for service in the USA provided on request!			
<b>Venezuela</b>			
<b>Assembly Sales Service</b>	<b>Valencia</b>	SEW-EURODRIVE Venezuela S.A. Av. Norte Sur No. 3, Galpon 84-319 Zona Industrial Municipal Norte Valencia, Estado Carabobo	Tel. +58 241 832-9804 Fax +58 241 838-6275 sewventas@cantv.net sewfinanzas@cantv.net





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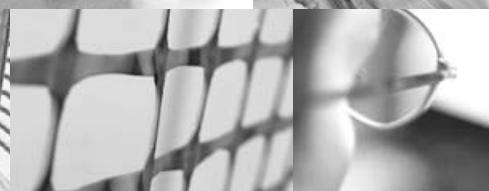


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